



BULLETIN

DU

DÉPARTEMENT DE L'AGRICULTURE

AUX

INDES NÉERLANDAISES.

N^o. XXVII.

BUITENZORG,
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PLEOPELTIDIS SPECIERUM MALAIARUM ENUMERATIO.

AN

ENUMERATIVE REVISION OF THE MALAYAN SPECIES OF THE FERNGENUS PLEOPELTIS.

BY CAPT. C. R. W. K. VAN ALDERWERELT VAN ROSENBURGH.



The following list of the Malayan species of the fern genus *Pleopeltis* is intended as a correction of my Handbook on Malayan Ferns.

When arranging this work I really considered *Pleopeltis* and *Selliguea* to be different from the genus *Polypodium* but I did not separate them from it, because the necessity would then have arisen to rename a too large number of species. When CHRIST'S criticism on CHRISTENSEN'S *Index Filicum*, in which the former scholar advocated the aforesaid separation, came into my hands, my manuscript was already in the press, and revision was then impossible.

In distinction from CHRIST, however, who considers *Pleopeltis* and *Selliguea* as *two different* genera, I take the latter as a section of the former, in view of the great affinity between them and the existense of intermediate forms (species with linear-oblong, round and confluent, linear and interrupted sori).

For the sake of convenience the species are given in this list with the same numbers as in my Handbook, where they are enumerated under the heading „*Polypodium*”.

Tokyo, March 1909.



PLEOPELTIS, **Humb. & Bonpl.**

Sori round, oblong, linear oblong or linear, superficial or immersed, generally compital, the oblong ones mostly, the linear

ones always dorsal, mostly oblique to the costa and margin: the round and oblong ones dorsal, submarginal or on marginal outgrowths, sometimes covered by the raised edges of the cavities or by long-stalked, peltate scales. No indusium.

Rhizome mostly wide-creeping, rarely short, erect or tuberous. Stipes articulate to the rhizome. Fronds simple, pinnatifid or pinnate: surfaces naked, scaly or hairy, the hairs not stellately branched; veins anastomosing commonly very copiously; areolae generally very irregular, sometimes more regular but then not as in *Polypodium* §§ *Goniophlebium*, *Campyloneuron* or *Phlebodium*; free included veinlets generally present, mostly spreading in various directions, very rarely directed towards the costa or the margin.

Arrangement of the sections and groups. ()*

§ 1. **EUPLEOPELTIS.**

a. **Myrmecophila.**

*. *Aspidopodium*

**. *Lecanopteris.*

b. **Atactosia.**

*. *Lepisorus.*

**. *Pleuridium.*

c. **Chrysopteris.**

*. *Phymatodes.*

**. *Phymatopsis.*

***. *Drynariopsis.*

****. *Aglaomorpha.*

§ 2. **SELLIGUEA.**

§ 1. **EUPLEOPELTIS.** a. **Myrmecophila.**

*. *Aspidopodium.*

(122) **Pl. sinuosa** (Wall.), **Bedd.**; *Polypodium sinuosum*, Wall.

(*) For the characters of the sections and groups see my handbook on „*Malayan Ferns*” pp. 568–569.

(123) **Pl. lomarioides** (J. Sm.), **Moore**, Ind., LXXVIII;
Drynaria lomarioides, J. Sm.

(124) **Pl. sarcopus** (de Vr. & Teysm.), **v. A. v. R.**:
Polypodium sarcopus, de Vr. & Teysm.

(125) **Pl. imbricata** (Karst), **v. A. v. R.**: *Polypodium*
imbricatum, Karst.

§ 1. **EUPLEOPELTIS**. a. **Myrmecophila**. *. *Lecanopteris*.

(126) **Pl. carnosa** (Bl.), **v. A. v. R.**: *Lecanopteris carnosa*,
Bl.: — var. *pumila*: *L. pumila*, Bl.

(127) **Pl. Nieuwenhuisii** (Christ), **v. A. v. R.**: *Lecanopteris*
Nieuwenhuisii, Christ.

(128) **Pl. deparoides** (Ces.), **v. A. v. R.**: *Davallia de-*
paroides, Ces.

(129) **Pl. Macleayi** (Bk.), **v. A. v. R.**: *Lecanopteris*
Macleayi, Bk.

(130) **Pl. barisanica**, **v. A. v. R.**: *Lecanopteris incurvata*,
Bl.; (not *Pl. incurvata*, Moore; See N^o. 206).

(131) **Pl. Curtisii** (Bk.), **v. A. v. R.**: *Lecanopteris Cur-*
tisii, Bk.

§ 1. **EUPLEOPELTIS**. b. **Atactosia** *. **Lepisorus**.

(132) **Pl. holophylla** (Bk.), **v. A. v. R.**: *Polypodium*
holophyllum Bk., Journ. of Bot., XVII, 43 (not XXVI, 325).

(133) **Pl. subsparsa** (Bk.), **v. A. v. R.**: *Polypodium sub-*
sparsum, Bk.

(134) **Pl. tenuiloris** J. Sm. **Moore**, Ind., LXXVIII;
Drynaria tenuiloris, J. Sm.

(135) **Pl. sarawakensis** (Bk.), **v. A. v. R.**: *Polypodium sarawakense*, Bk.

(136) **Pl. superficialis** (Bl.), **Bedd.**: *Polypodium superficiale* Bl.

(137) **Pl. peltata**. **Scort.**

(138) **Pl. antrophyoides**. **v. A. v. R.**: *Polypodium antrophyoides*, v. A. v. R.

(139) **Pl. curtidens** (Christ), **v. A. v. R.**: *Polypodium curtidens*, Christ.

(140) **Pl. Bakeri** (Lueress), **v. A. v. R.**: *Polypodium Bakeri*, Lueress.; *P. torulosum*, Bk., Journ. of Bot. XVIII, 215.

(141) **Pl. Wrayi** (Bk.), **Bedd.**, Handb. Ind. Ferns, Suppl., 93; *Polypodium Wrayi*, Bk.

(142) **Pl. Beccarii**. **v. A. v. R.**: *Polypodium Beccarii*, v. A. v. R.

(143a) **Pl. accedens** (Bl.), **Moore**: *Polypodium accedens*, Bl.

(143b) **Pl. damunensis** (Rst.), **v. A. v. R.**: *Polypodium damunense*, Rst.

(144) **Pl. nummularia** (Pr.), **Moore**. Ind., 394: *Marginalia nummularia* Pr.

(145) **Pl. hammatisora** (Harr.), **v. A. v. R.**: *Polypodium hammatisorum*, Harr.; (? *Pl. nummularia*, Moore).

(146) **Pl. stenopteris** (Bk.), **v. A. v. R.**: *Polypodium stenopteris*, Bk.

(147) **Pl. soridens** (Hk.), **v. A. v. R.**: *Polypodium soridens*, Hk.

(148) **Pl. neglecta** (Bl.), **Moore**. Ind. 262; *Polypodium neglectum*, Bl.

(149) **Pl. rudimenta** (Copel.), **v. A. v. R.:** *Polypodium rudimentum*, Copel., (? Pl. oodes, Moore).

(150) **Pl. subecostata** (Hk.), **v. A. v. R.:** *Polypodium subecostatum* Hk.

(151) **Pl. rostrata** (Hk.), **Bedd.:** *Polypodium rostratum*, Hk.;—var. trifurcata.

(152) **Pl. linearis** (Thb.), **Moore:** *Polypodium lineare*, Thb.

(153) **Pl. Forbesii**, **v. A. v. R.:** *Polypodium Forbesii*, v. A. v. R.

(154) **Pl. indurata** (Bk.), **v. A. v. R.:** *Polypodium induratum*, Bk.

(155) **Pl. stenophylla** (Bl.), **Moore** *Polypodium stenophyllum*, Bl.

(156 a.) **Pl. revoluta** (J. Sm.), **v. A. v. R.:** *Drynaria revoluta*, J. Sm; *Polypodium productum* Christ.

(157) **Pl. subgeminata** (Christ), **v. A. v. R.:** *Polypodium subgeminatum*, Christ.

(158) **Pl. papuana** (Bk.), **v. A. v. R.:** *Polypodium papuanum*, Bk.

(159) **Pl. Annabellae** (Forb.), **v. A. v. R.:** *Polypodium Annabellae*, Forb.

(160) **Pl. lycopodioides** (L.), **Pr..** Tent. Pterid., 193; *Polypodium lycopodioides*, L.

(161) **Pl. Raapii**, **v. A. v. R.:** *Polypodium Raapii*, v. A. v. R.

(162) **Pl. zosteriformis** (Wall.), **Bedd.:** *Polypodium zosteriforme*, Wall.

(163) **Pl. normalis** (Don), **Moore:** *Polypodium normale*, Don; — var. *longifrons*.

(164 a.) **Pl. myriocarpa** (Pr.), **Moore.** Ind., LXXVIII; *Phymatodes myriocarpa*, Pr.

(164 b.) **Pl. sablaniana** (Christ), **v. A. v. R.:** *Polypodium sablanianum*, Christ.

(165) **Pl. glossipes** (Bk.), **v. A. v. R.:** *Polypodium glossipes*, Bk.

(166) **Pl. linguaeformis** (Mett.), **v. A. v. R.:** *Polypodium linguaeforme*, Mett.

§ 1. **EUPLEOPELTIS.** b. **Atactosia.** **. *Pleuridium.*

(167) **Pl. costulata** (Ces.), **v. A. v. R.:** *Acrostichum costulatum*, Ces.

(168) **Pl. Helwigii** (Diels), **v. A. v. R.:** *Polypodium Helwigii*, Diels.

(169) **Pl. rhynchophylla** (Hk.), **Moore:** *Polypodium rhynchophyllum*, Hk.

(170) **Pl. Griffithiana** (Hk.), **Moore:** *Polypodium Griffithianum*, Hk.; — var. *borneensis*.

(171) **Pl. Whitfordi** (Copel.), **v. A. v. R.:** *Polypodium Whitfordi*, Copel.

(172 a.) **Pl. Treubii** (Christ), **v. A. v. R.:** *Polypodium Treubii*, Christ.

(172 b.) **Pl. Valettoniana.** **v. A. v. R.:** *Polypodium Valettonianum*, v. A. v. R.

(173) **Pl. platyphylla** (Sw.), **Bedd.**: *Polypodium platyphyllum*, Sw.

(174) **Pl. campyloneuroides** (Bk.), **v. A. v. R.**: *Polypodium campyloneuroides*, Bk.

(175) **Pl. phlebiscopa** (Bk.), **v. A. v. R.**: *Polypodium phlebiscopum*, Bk.

(176a) **Pl. hemionitidea** (Wall.), **Moore**: *Polypodium hemionitideum*, Wall.

(176b) **Pl. Wernerii** (Rst.), **v. A. v. R.**: *Polypodium Wernerii*, Rst.

(177) **Pl. Zippelii** (Bl.), **Moore**: *Polypodium Zippelii*, Bl.; — var. *sparsisora*.

(178) **Pl. membranacea** (Don.), **Moore**: *Polypodium membranaceum*, Don; — var. *grandifolia*: *P. grandifolium*, Wall.

(179) **Pl. leucophora** (Bk.), **v. A. v. R.**: *Polypodium leucophorum*, Bk.

(180) **Pl. triquetra** (Bl.), **v. A. v. R.**: *Polypodium triquetrum*, Bl.

(181a) **Pl. rupestris** (Bl.), **Moore**: *Polypodium rupestre* Bl.; — var. *taeniopsis*; — var. *leucolepis*.

(181b) **Pl. luzonica** (Copel.), **v. A. v. R.**: *Polypodium luzonicum*, Copel.

(182) **Pl. albula** (Christ), **v. A. v. R.**: *Polypodium albulum*.

(183) **Pl. oodes** (Kze), **Moore**, Ind., LXXVII; *Polypodium oodes*, Kze.

(184) **Pl. dulitensis** (Bk.), **v. A. v. R.**: *Polypodium dulitense*, Bk.

(185 a) **Pl. subopposita** (Christ), **v. A. v. R.**: *Polypodium oppositum*, Christ.

(185 b) **Pl. Scortechinii** (Bk.), **Bedd.**: *Polypodium Scortechinii*, Bk.

(186 a) **Pl. ovata** (Wall.), **Moore**: *Polypodium ovatum*, Wall.

(186 b) **Pl. Zollingeriana** (Kze), **v. A. v. R.**: *Polypodium Zollingerianum*, Kze.

(187) **Pl. millisora** (Bk.), **v. A. v. R.**: *Polypodium millisorum*, Bk.

(188) **Pl. punctata** (L.), **Bedd.**: *Acrostichum punctatum*, L.; — var. *mindanensis*; — var. *subiridea*; — var. *subdrynariacea*.

(189) **Pl. musifolia** (Bl.), **Moore**: *Polypodium musae-folium*, Bl.

(190 a) **Pl. valida** (Copel.), **v. A. v. R.**: *Polypodium validum*, Copel.

(190 b) **Pl. monstrosa** (Copel.), **v. A. v. R.**: *Polypodium monstrosum*, Copel.: — var. *leucophlebia*; — var. *integrior*.

(191) **Pl. Weinlandii** (Christ), **v. A. v. R.**: *Polypodium Weinlandii*, Christ.

§ 1. **EUPLEOPELTIS**. c. **Chrysopteris**. *. *Phymatodes*.

(192) **Pl. paucijuga**. **v. A. v. R.**: *Polypodium paucijugum*, **v. A. v. R.**

(193) **Pl. sumatrana** (Bk.), **v. A. v. R.**: *Polypodium sumatranum*, Bk., Ann. of Bot., VIII, 131 (not Journ. of Bot., XVIII, 214).

(194a) **Pl. alata** (Brack.), **Moore**. Ind., 344; *Drynaria alata*, Brack.

(194b) **Pl. flaccida** (Christ), **v. A. v. R.**: *Polypodium flaccidum*, Christ.

(195) **Pl. commutata** (Bl.), **v. A. v. R.**: *Polypodium commutatum*, Bl.

(196) **Pl. ebenipes** (Hk.), **Bedd.**: *Polypodium ebenipes*, Hk.

(197) **Pl. glauca** (J. Sm.), **Moore**. Ind., LXXVIII; *Drynaria glauca*, J. Sm., Journ. of Bot, III, 397.

(198) **Pl. hastata** (Thb.), **Moore**, *Polypodium hastatum*, Thb.;—var. *trifidum*.

(199) **Pl. quinquesida** (Bk.), **v. A. v. R.**: *Polypodium quinquesidum* Bk.

(200) **Pl. anomala** (Christ), **v. A. v. R.**: *Polypodium anomalum*, Christ.

(201) **Pl. grandidentata** (Ces.), **v. A. v. R.**: *Polypodium dilatatum*, Wall., var. *grandidentatum*, Ces.

(202a) **Pl. pteropus** (Bl.), **Moore**: *Polypodium pteropus*, Bl.

(202b) **Pl. dolichoptera** (Copel.), **v. A. v. R.**: *Polypodium dolichopterum*, Copel.

(203a) **Pl. rivularis** (Copel.), **v. A. v. R.**: *Polypodium rivulare*, Copel.

(203b) **Pl. pentaphylla** (Bk.), **v. A. v. R.**: *Polypodium pentaphyllum*, Bk.

(204) **Pl. insignis** (Bl.), **Bedd.**: *Polypodium insigne*, Bl.

(205) **Pl. dilatata** (Wall.), **Bedd.**: *Polypodium dilatatum*, Wall.

(206) **Pl. incurvata** (Bl.), **Moore:** *Polypodium incurvatum*, Bl.

(207) **Pl. laciniata** (Bl.), **Bedd.:** *Polypodium laciniatum*, Bl.

(208 a) **Pl. phymatodes** (L.), **Moore:** *Polypodium phymatodes* L.; — var. dimorpha.

(208 b) **Pl. phanerophlebia** (Copel.), **r. A. r. R.:** *Polypodium phanerophlebium*, Copel.

(209) **Pl. violascens.** (Mett.), **r. A. r. R.:** *Polypodium violascens*, Mett.

(210) **Pl. nigrescens** (Bl.), **Carr.:** *Polypodium nigrescens* Bl.

(211) **Pl. Schneideri** (Christ), **r. A. r. R.:** *Polypodium Schneideri*, Christ.

(212) **Pl. longissima** (Bl.), **Moore:** *Polypodium longissimum*, Bl.

§ 1. **EUPLEOPELTIS.** c. **Chrysopteris** ** *Phymatopsis*.

(213) **Pl. lagunensis** (Christ), **r. A. r. R.:** *Polypodium lagunense*, Christ.

(214) **Pl. sculpturata** (Bk.), **r. A. r. R.:** *Polypodium sculpturatum*, Bk.

(215) **Pl. Sauvinieri** (Bk.), **r. A. r. R.:** *Polypodium Sauvinieri*, Bk.

(216) **Pl. subaquatilis** (Christ), **r. A. r. R.:** *Polypodium subaquatile*, Christ.

(217) **Pl. albidosquamata.** (Bl.), **Pr.:** Tent. Pterid., 193: *Polypodium albidosquamatum*, Bl.; var. varians.

(218) **Pl. Moseleyi** (Bk.), **r. A. r. R.:** *Polypodium Moseleyi*, Bk.

(219) **Pl. palmata** (Bl.) **Moore**: *Polypodium palmatum* Bl.; — var. *angustata*; — var. *obtusata*.

(220) **Pl. proteus** (Copel.), **v. A. v. R.**: *Polypodium proteus*, Copel.

§ 1. **EUPLEOPELTIS** c. **Chrysopteris**.

*** *Drynariopsis*.

(220) **Pl. coronans** (Wall.), **v. A. v. R.**: *Polypodium coronans*, Wall.

(221) **Pl. heraclea** (Kze.), **v. A. v. R.**: *Polypodium heracleum*, Kze.

§ 1. **EUPLEOPELTIS** c. **Chrysopteris**.

****. *Aglaomorpha*.

(222) **Pl. Meyeniana** (Schott), **v. A. v. R.**: *Aglaomorpha Meyeniana*, Schott.

§ 2. **SELLIGUEA**.

(223a) **Pl. selliguea** (Mett), **v. A. v. R.**: *Polypodium selliguea*, Mett.; *Grammitis membranacea* Bl., Enum. 118: (not *Pl. membranacea*, Moore, quoted above under No. 178).

(223b) **Pl. Bolsteri** (Copel.), **v. A. v. R.**: *Polypodium Bolsteri*, Copel.

(224) **Pl. interrupta** (C. Chr.), **v. A. v. R.**: *Polypodium interruptum*, C. Chr.; *Gymnogramme acuminata*, Bk.; (not *Pl. acuminata*, Moore, Ind., 344 = *Pl. accedens*, Moore, quoted above under No. 143a).

(225) **Pl. regularis** (Mett), **v. A. v. R.**: *Polypodium regulare*, Mett.

(226) **Pl. Hosei** (C. Chr.), **v. A. v. R.:** *Polypodium Hosei* C. Chr.; *Gymnogramme campyloneuroides*, Bk.; (not *Pl. campyloneuroides*, v. A. v. R., quoted above under No. 174).

(227) **Pl. macrophylla** (Bl.), **v. A. v. R.:** *Grammitis macrophylla*, Bl.

(228) **Pl. spuria** (Mett.), **v. A. v. R.:** *Polypodium spurium*, Mett.

(229) **Pl. pedunculata** (Hk. & Grev.), **v. A. v. R.:** *Ceterach pedunculata*, Hk. & Grev.

(230) **Pl. Elmeri** (Copel), **v. A. v. R.:** *Polypodium Elmeri*, Copel.; — var. *separata*.

(231a) **Pl. Feei** (Bory), **v. A. v. R.:** *Selliguea Feei*, Bory: — var. *vulcanica*; — var. *caudiformis*.

(231b) **Pl. calophlebia** (Copel), **v. A. v. R.:** *Polypodium calophlebium*, Copel.

(232) **Pl. heterocarpa** (Bl.), **v. A. v. R.:** *Grammitis heterocarpa*, Bl.: (not *Pl. heterocarpa*, Moore, Ind., LXXVIII = *Pl. Zollingeriana*, v. A. v. R. quoted above under No. 186b); var. *interrupta*; — var. *abbreviata*.

(233) **Pl. elliptica** (Thb.), **v. A. v. R.:** *Polypodium ellipticum*, Thb.

(234) **Pl. Maingayi** (Bk.), **v. A. v. R.:** *Gymnogramme Maingayi*, Bk.

FILICES HORTI BOGORIENSIS,
A LIST OF THE FERNS CULTIVATED IN
THE BUITENZORG BOTANICAL GARDENS.

DIVISION II K.

BY CAPT. C. R. W. K. VAN ALDERWERELT VAN ROSENBURGH.



Many years have elapsed since Dr RACIBORSKI's determination of the ferns cultivated in the BUITENZORG BOTANICAL GARDENS. In the meantime a large number of these plants died and have been replaced by others, partly undetermined, partly provided with false labels. Also the names of the surviving plants had for the greater part passed out of use, i. e. they did not agree with the present conceptions of nomenclature.

For these reasons a revision of the names and a new determination was urgently required. I decided therefore to undertake, as far as possible, this task during my engagement at the BUITENZORG HERBARIUM. The following pages contain the result of my efforts.

The plants marked + are those of which the determination is practically certain. Not so quite certain is the determination of those marked Δ , partly because they were still too young, partly because they were not Malayan plants, or their origin could not be accurately ascertained, so that the complete determination would have required too much time.

The plants that are not marked are not determined and of many of them neither species nor genus could be made out. Possibly at a later date, when they are full-grown, a definite description can be given.

In the ensuing pages I have made use of my Handbook on „MALAYAN FERNS”, then only existing in manuscript, and the names on the labels agree with those given in the above treatise. As to the synonyms the original names only are quoted, with however the addition of those which are to be found in CHRISTENSEN'S

„INDEX FILICUM”, where these are different from the names given in my handbook.

The numbers placed before the names of the plants indicate the sequence in the sections and those placed within brackets refer to the pages of my handbook.

Tokyo, April 1909.

SECTION I.

+ No. 1. **Alsophila latebrosa**. *Wall.* (38).—A very common arborescent fern, widely distributed throughout.

British India across the Malayan Archipelago and Formosa.

+ No. 2. **Davallia pallida**. *Mett.* (301).—Terrestrial.

Borneo, Mindanao, New-Guinea, Aneitum, Samoa.

+ No 3. **Nephrolepis biserrata**. *Schott.* (162); *Aspidium biserratum*, *Sw.*, Schrad. Journ., 1800², 32.—A very common fern, as well epiphytical as terrestrial, widely distributed throughout:

The tropics of the world.

+ No 4. **Cibotium barometz**. *J. Sm.* (48. 792). ? *Polypodium Barometz*, *L.*, Spec., 1092.—Typical form. The copious, very long, fine, woolly hairs of the stipes are sometimes used to fill pillows.

Malaya, Assam, Southern China.

+ No 5. **Drynaria rigidula**. *Bedd.* (699); *Polypodium rigididulum* *Sw.*, Schrad. Journ., 1800², 26,—Epiphytical, but sometimes also terrestrial. Plants not dying down when destitute of its humus-collecting cupleaves, which commonly form large nests.

Tropical Asia, Australia, Polynesia.

+ No 6. **Polypodium verrucosum**. *Wall.* (619).—A beautiful, often cultivated ornamental epiphyte with large, sub-pendulous fronds.

Malaya, Tropical Australia.

+ No 7. **Osmunda javanica**. *Bl.* (756).—Terrestrial.

Tropical Asia, Japan, Kamschatka.

+ No 8. **Asplenium nidus. L.**, (439).—A very common, but beautiful species, forming large nests on the trunks and branches of dicotyle trees. Not dying down when transplanted into pots filled with mould

Paleotropical.

No. 9. **Blechnum brasiliense. Desr.**

Brasilia, Peru.

+ No. 10. **Pteris ensiformis. Burm.**, (360).—A very common terrestrial fern. Often cultivated.

China and Northern India across the Malayan Islands, tropical Australia and Polynesia.

SECTION II.

+ No. 1. **Cyclophorus distichocarpus. C. Chr.**, (693); *Polypodium distichocarpum*, Mett., in Ann. Mus. Bot. L. B., II, 231.—Rather rare.

Java. Sumatra, Malacca.

+ No 2. **Cyclophorus Beddomeanus. C. Chr.** (695); *Nipholobus Beddomeanus*, Gies., Niph., 101.—Terrestrial. This specimen has been imported from New Guinea, though Christensen states that the species occurs in Northern India and Southern China only. In the Buitenzorg Herbarium I saw specimens from other islands of the Malayan Archipelago.

Malaya, Northern India, Southern China.

+ No. 3. **Aspidium vastum. Bl.**, (241).—Terrestrial.
Malaya, Northern India.

+ No. 5. **Leptochilus decurrens. Bl. var rasamalae.** (736).—Terrestrial.

Java.

No. 6. **Filix** Spec.—

Sumatra (Padang).

+ No. 7. **Asplenium spatulatum**. **Bk.**, (442)—This specimen was received from Malacca. Terrestrial.

Sumatra, Malacca.

+ No. 8. **Dryopteris piloso-squamata**. **v. A. v. R.**, (222).—Terrestrial.

Skroe (New Guinea).

+ No. 9. **Pleopeltis Zippelii Moore**: *Polypodium Zippelii*, **Bl.**, (649).—Terrestrial.

Northern India, Malacca, Java, Borneo, Philippines.

No. 10. **Davallia** Spec.—

+ No. 11. **Dryopteris arida**. **O. Ktze.**, (212); *Aspidium aridum* **Don**, *Prod. Flor. Nepal.*, 4.—Terrestrial.

Malaya, Northern India.

+ No. 12. **Leptochilus heteroclitus**. **C. Chr.**, (739); *Acrostichum heteroclitum*, **Pr.**, *Rel. Haenk.*, I, 15.—Terrestrial. An exceedingly variable fern.

Tropical and Subtropical Asia, Melanesia.

No. 13. *Lycopodium carinatum*, **Bl.**—

+ No. 14. **Leptochilus cuspidatus**, **C. Chr.**, (741); ? *Nephrodium cuspidatum*, **Pr.**, *Rel. Haenk.*, I, 31.—Terrestrial.

Seychelles, Tropical Asia, Australia, Polynesia.

+ No. 15. **Cyclophorus stigmus** **Desc.**, (695); *Polypodium stigmus*, **Sw.**, *Schrad. Journ.*, 1800², 21.—Terrestrial.

Malaya, Ceylon, Southern India.

No. 16. **Filix** Spec.—

Sumatra (Padang).

+ No. 17. **Stenochlaena palustris**. **Bedd.**, (720); *Polypodium palustre*, **Burm.**, *Flor. Ind.*, 234.—Scandent, sometimes also wide-creeping, not rarely reaching the tops of the highest

trees. The rhizome is sometimes (especially in Celebes) used as ship-rope.

Tropical Asia, Australia, Polynesia.

SECTION III.

+ No. 1. **Pteris quadriaurita. Retz. var. argenta.** (366); ? *Pt. argyraea*, Moore, Gard. Chron. 1859, 671; *Pt. biaurita*, L., var., C. Chr. Ind. Fil., 593.—A very beautiful ornamental plant. Terrestrial.

Hab.?

+ No. 2. **Polypodium persicifolium Desc.** (618).—Epiphytical, but sometimes also terrestrial.

Sumatra, Java, Celebes, Philippines.

+ No. 3. **Pteris Grevilleana. Wall. var. ornata.** (364).—A beautiful terrestrial fern, readily distinguished from *Pt. quadriaurita*, Retz, var. *argentea* by its 1—2-jugate pinnae and very indistinct venation. Imported from:

Borneo.

+ No. 4. **Didymochlaena lunulata Desc.** (170); *Adiantum lunulatum*, Houtt., Nat. Hist., XIV, 209; *D. truncatula*, J. Sm., Journ. of Bot., IV, 196.—Terrestrial.

Pantropical.

+ No. 5. **Taenitis blechnoides. Sw.** (563); *Pteris blechnoides*, Willd., Phyt., 13.—Terrestrial.

Tropical Asia, Fiji.

+ No. 6. **Gleichenia laevigata. Hk.** (59); *Mertensia laevigata*, Willd., Spec., V, 75.—Terrestrial.

Malaya.

+ No. 7. **Aspidium persoriferum. Copel.** (251).—Terrestrial. This plant quite agrees with Copeland's diagnosis, except that both barren and fertile pinnae are $\pm$ twice as broad. The specimen has been received from Borneo.—Copeland now

considers his Philippine plant to be a form of *A. repandum*, Willd. (= *Tectaria crenata*, Cav.), Philipp. Journ. Sci., II^c, 414.
Borneo, Philippines.

No. 8. **Filix** Spec. —
Sumatra (Padang).

+ No. 9. **Pleopeltis pteropus. Moore:** *Polypodium pteropus* Bl., (661). — Terrestrial or aquatic.
Tropical Asia.

+ No. 10. **Helmintostachys zeylanica. Hk.** (777); *Osmunda zeylanica*, L., Spec., II, 1063. — A common and very characteristic fern.
Tropical Asia and Australia, New Caledonia.

+ No. 11. **Pleopeltis longissima. Moore:** *Polypodium longissimum*, Bl., (666). —
Malaya, Polynesia.

+ No. 12. **Cyclophorus Beddomeanus. C. Chr.** (695); *Nipholobolus Beddomeanus*, Gies., Niph., 101 — A large specimen, probably from Java.
Malaya, Northern India, Southern China.

✓ + No. 13. **Vittaria elongata. Sw.** (556). — Epiphytical. A very common grass-like fern with perfectly straight, pendulous fronds.
Tropical Asia and Polynesia, New South Wales.

+ No. 14. **Dictyopteris irregularis. Pr.** (520): *Polypodium irregulare*, Pr., Rel. Haenk., I, 25; *Aspidium irregulare*, C. Chr., Ind. Fil., 78. — Large, terrestrial
Malaya.

No. 15. **Filix** Spec. —
Sumatra (Padang).

+ No. 16. **Cyclophorus acrostichoides. Pr.** (683);

Polypodium acrostichoides, Forst., Prod., 81.—Epiphytical, subpendulous in the longer forms. Very common.

Ceylon, Malaya, Queensland, Polynesia.

+ No. 17. **Pleopeltis nigrescens. Carr.:** *Polypodium nigrescens*, Bl., (665).—Terrestrial and epiphytical. Widely distributed and very common.

Southern India, Ceylon, Malaya, Tropical Australia, Polynesia.

+ No. 18. **Pleopeltis commutata v. A. v. R.:** *Polypodium commutatum*, Bl., (659).—

Malaya.

+ No. 19. **Cyclophorus abbreviatus. C. Chr.:** (692); *Niphobolus abbreviatus*, Zoll., Nat. genesk. Arch., I, 397.—Epiphytical, widecreeping, rather scandent, readily to be recognized by its long-stalked, short fronds. Under surface and stipe of the young fronds nearly snow-white by the densely crowded stellate hairs.

Java, Sumatra.

+ No. 20. **Pleopeltis heraclea. v. A. v. R.:** *Polypodium herecleum*, Kze, (671).—Epiphytical and terrestrial. Very large.—According to Christensen's Index Filicum this species is a Myrmecophila, but the specimens, which I saw in state of nature, had decidedly a solid, fleshy, succulent rhizome, provided with linear-subulate scales.

Malaya.

+ No. 21. **Drynaria quercifolia J. Sm.:** (698) *Polypodium quercifolium*, L., Spec., II. 1087.—Epiphytical.

Southern China, Tropical Asia and Australia, Fiji.

SECTION IV.

+ No. 2. **Adiantum tenerum Sw.:** (330).—A form with shallowly lobed ultimate leaflets. Terrestrial.

Bermuda, West India, Mexico, Juan Fernandez.

+ No. 3. **Adiantum trapeziforme. L.** (325).— A beautiful, terrestrial ornamental fern.

Tropical America.

+ No. 4. **Adiantum limulatum. Burm.** (325).— Terrestrial. Common.

Tropical Africa, Asia, Australia and Polynesia. Central America.

+ No. 5. **Adiantum macrophyllum. Sw.** var. **striatum.** (321).— A beautiful terrestrial fern, conspicuously variegated with long and short, narrow and broad, white stripes placed irregularly between or running along the veins.

American?

No. 6. **Asplenium** Spec.—

Sumatra (Padang).

+ No. 7. **Adiantum macrophyllum. Sw.** (321).— Terrestrial, much cultivated.

Tropical America.

+ No. 8. **Pleopeltis nigrescens. Carr.** (665).—

+ No. 9. **Adiantum peruvianum. Kl.** (326).— A beautiful terrestrial fern. Much cultivated. Large.

Peru.

+ No. 10. **Adiantum polyphyllum. Willd.** (328).— Terrestrial, large, beautiful. Much cultivated.

Peru, Bolivia, Venezuela.

+ No. 12. **Loxogramme iridifolia. Copel.** (539); *Gymnogramme iridifolia, Christ*, Verh. Nat. Ges. Basel., XI, 248; *Polypodium iridifolium, Diels*, C. Chr., Ind. Fil., 535.— Rather rare.

Java, Celebes, Mindanao.

+ No. 13. **Adiantum hispidulum. Sw.** (333).— Terrestrial.

Paleotropical.

- ✓ + No. 14. **Antrophyum alatum. Brack.** (535). —
Malaya, Polynesia.
- ✓ + No. 17. **Lindsaya tenuifolia. Bl.** (265). — Terrestrial.
Malaya, Polynesia.
- + No. 18. **Adiantum tinctum. Moore.** (332). — Terrestrial.
Costa-Rica, Peru.
- No. 19. **Adiantum** Spec. —
Java (Surabaya).
- + No. 20. **Adiantum aculeolatum. v. A. v. R.** (327).
— Terrestrial.
Amboyna.
- + No. 22. **Adiantum ciliatum. Bl.** (324); *A. caudatum*,
L., var., C. Chr.. Ind. Fil., 24. — Terrestrial.
Tropical Asia and Africa.
- + No. 24. **Adiantum tenerum. Sw.**, (330). —
- + No. 25. **Adiantum cuneatum. L. & F.** (332). —
Terrestrial. A. very common ornamental plant, with many garden
varieties.
Brasilia, Peru, Argentina.
- + No. 26. **Adiantum Fergusonii. Moore.** — Terrestrial.
Probably a garden variety of another species, obtained by cultivation.
- + No. 28. **Adiantum diaphanum. Bl., var. affine**, (323);
— Terrestrial.
- + No. 29. **Pteris pellucida. Pr.** (357). — Terrestrial.
Common.
Malaya, Northern India.
- + No. 31. **Adiantum polyphyllum. Willd.** (328). —
- + No. 32. **Adiantum aculeolatum. v. A. v. R.** (327). —
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SECTION V.

+ No. 1. **Pteris ensiformis. Burm.** (360).—

+ No. 3. **Platycerium Wilhelminæ Reginae. v. A. v. R.** (708).— Epiphytical. In my opinion the most beautiful and interesting fern species, at least of the epiphytes, uniting in one frond the simplest and the most divided forms of the genus.
Malayan?

+ No. 4. **Pteris quadriaurita. Retz.** (365): *Pt. biaurita, L. var.*, C. Chr., Ind. Fil., 593.— A very common terrestrial fern with many varieties, some of which are sometimes considered as distinct species.

Pantropical.

+ No. 5. **Adiantum hispidulum. Sw.** (333).

+ No. 6. **Schizoloma ensifolium. J. Sm.** (280); *Lindsaya ensifolia. Sw.* Schrad Journ., 1800², 77.— Terrestrial.

Western and Southern Africa, Tropical Asia, Australia and Polynesia.

+ No. 7. **Pteris semipinnata. L.** (362).— Terrestrial. Readily recognizable by its pinnæ being entire on the anterior and deeply pinnatifid on the posterior edge.

Tropical Asia, China, Japan.

No. 9. **Asplenium** Spec.—

△ No. 10. **Pteris pellucida. Pr.** (357).—

+ No. 11. **Pleopeltis macrophylla. v. A. v. R.** (674); *Grammitis macrophylla, Bl.*, Enum, 119.— Terrestrial and epiphytical.
Malaya, Southern China.

△ No. 13. **Onychium japonicum. Kze.** (351).—

+ No. 14. **Drynaria pleuridioides. Pr.** (697).— Epiphytical.
Java.

- + No. 16. **Pleopeltis Zippelii. Moore.** (649).—
Malacca, Java, Borneo, Philippines, Northern India.
- + No. 18. **Asplenium glochidiatum. Rac.** (445).—
Terrestrial.
Borneo.
- + No. 20. **Leptochilus trifidus. v. A. v. R.** (736).—
Terrestrial.
Malayan ?
- + No. 21. **Vittaria elongata. Sw.** (556).—
- + No. 22. **Diplazium lanceum. Pr.** Tent. Pterid.,
113; *Asplenium lanceum*. Thb., Flor. Jap., 333.—Terrestrial.
Japan, China, Br. India, Ceylon.
- △ No. 23. **Asplenium macrophyllum. Sw. var.**—
- + No. 26. **Asplenium amboinense. Willd.** (441).—
Terrestrial.
Malaya, Polynesia.
- + No. 28. **Asplenium squamulatum. Bl.** (445).—
Terrestrial.
Malaya.
- + No. 29. **Asplenium amboinense. Willd.** (441).—
- + No. 31. **Cyclopeltis Presliana. Berk.** (164); *Lastraea Presliana*, J. Sm., Journ. of Bot., III, 412.—Terrestrial. Very characteristic by its pinnae having the lower base auricled with a conspicuously hamato-recurvate lobe overlapping the rachis and adpressed to it.
Malaya, Tonkin, Burmah.
- + No. 33. **Lygodium circinatum. Sw. var. mon-
struosum.** (112).—Terrestrial. Ultimate pinnulae once or more times forked near the apex, which gives the plant an appearance of distinctness wanting in the type.
Malayan ?
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SECTION VI.

+ No. 1. **Asplenium Belangeri. Kze.** (474); *Darea Belangeri*, Bory, Bél., Voy., Bot., II, 51; *A. tenerum*, Forst., var., C. Chr., Ind. Fil., 135. — Terrestrial. Very common and often cultivated.

Malaya, Tonkin.

+ No. 2. **Pteris quadriaurita. Retz.** (365).

+ No. 3. **Asplenium longissimum. Bl.** (457). — Terrestrial. Common.

Malaya, Northern India, Mauritius, Juan Fernandez.

+ No. 4. **Pleopeltis rupestris. Moore:** *Polypodium rupestre*, Bl., (650); *P. triquetrum*, Bl., var., C. Chr., Ind. Fil., 571. — Epiphytical.

Malaya.

+ No. 5. **Asplenium cuneatum. Lam.** (470). — Terrestrial. Common.

Pantropical.

+ No. 8. **Diplazium Petersenii. Christ.** (411); *Asplenium Petersenii*, Kze, Anal., 24. — Terrestrial.

China, British India, Java, New Guinea.

+ No. 10 & 12. **Diplazium bantamense. Bl.** (405). — Terrestrial. Two somewhat different forms.

Tropical Asia.

+ No. 13. **Asplenium paradoxum. Bl.** (465). — Terrestrial. A form with the pinnae more copiously toothed than usually, but readily distinguished from *A. macrophyllum*, Sw., by its indistinct, rather hidden veins.

Malacca, Sumatra, Java, Borneo.

✓ + No. 16. **Asplenium scandens. J. Sm.** (375). — *Philippines, Borneo, Ceram, mboyna, New Guinea, Fiji.*

+ No. 18. **Phegopteris cuspidata. Mett.** (511); *Me-*

niscium cuspidatum, *Bl.* Enum., (114); *Dryopteris urophylla*, *C. Chr.* var., *C. Chr.*, Ind. Fil., 299.— Terrestrial.

Malaya, Northern India.

+ No. 19. **Pleopeltis Zollingeriana. v. A. v. B.:**
Polypodium Zollingerianum, *Kze.*, (653).—

Malaya.

+ No. 20. **Diplazium asperum. Bl.** (420).— Terrestrial.
Near *D. polypodioides*, *Bl.* in habit and appearance, but distinguished from this by its asperous stipes and rachises and the larger number of its veins.

Malacca, Java, Mindoro, Northern India.

△ No. 21. **Polystichum aristatum. Pr.** var. **cornu-cervi.**—

+ No. 22. **Nephrolepis exaltata. Schott.** var. **monstruosa.** (162).—A. beautiful, terrestrial, much cultivated ornamental plant.

Tropical.

+ No. 23. **Nephrolepis exaltata. Schott.** (161); *Polypodium exaltatum*, *L.*, Syst. Nat. Ed. X, 2.— Terrestrial and epiphytical. Very common.

Pantropical.

No. 24. **Platycerium** Spec.

+ No. 25. **Humata repens. Diels.** (288); *Adiantum repens*, *L. f.*, Suppl., 446.— Epiphytical.

Mascarenes, Seychelles, Tropical Asia and Australia, Southern China, Japan.

+ No. 26. **Cyclophorus albicans. Pr.** (688); *Niphobolus albicans*, *Bl.*, Enum., 107.— Epiphytical, adscendent.

+ No. 27. **Nephrolepis biserrata. Schott.** (162).—

+ No. 28. **Cyclophorus acrostichoides. Pr.** (683).—

+ No. 29. **Nephrolepis biserrata. Schott.** (162).—

+ No. 30. **Nephrolepis cordifolia. Pr.** (160); *Polypodium cordifolium*, L., Spec., II, 1089.—Terrestrial and epiphytical. Often in cultivation.

Pantropical, New Zealand, Japan.

+ No. 31. **Pleopeltis incurvata. Moore**; *Polypodium incurvatum*, Bl., (663).— Epiphytical. Very interesting by its simple, lanceolate [or more generally hastate, rarely deeply pinnatifid fronds, which are conspicuously contracted when fertile.

Malaya.

+ No. 32. **Platycerium bifurcatum. C. Chr.** (710) *Acrostichum bifurcatum*, Cav.. Anal. Hist. Nat., I, 105.— Epiphytical. Much cultivated.

Australia, New Caledonia, Lord Howe's Island.

+ No. 33. **Cyclophorus nummularifolius. C. Chr.** (165); *Acrostichum nummularifolium*, Sw., Syn., 191.— Epiphytical. A plant much resembling a small form of *Drymoglossum heterophyllum*, C. Chr.

Malaya, Northern India.

SECTION VII.

+ No. 1. **Christensenia aesculifolia. Max.** (768); *Aspidium aesculifolium*, Bl., Enum., 143.— Terrestrial.

Malaya, Assam.

+ No. 3. **Aspidium vastum. Bl.** (24).—

△ No. 4. **Pleocnemia devexa. v. A. v. R.. var. minor**, (812).— Terrestrial.

Borneo.

/ + No. 6. **Aspidium subtriphyllum. Hk.** (246); *Polypodium subtriphyllum*, Hk. & Arn., Bot. Beech. Voy., 256.— Terrestrial.

Resembles in habit *A. variolosum*, Wall., except that the sori are compital and not terminal.

Polynesia, Malaya, Ceylon, Burmah, China.

+ No. 9. ***Aspidium melanocaulon*, Bl.** (245). — Terrestrial.

Malaya, Tonkin, Eastern China.

+ No. 11. ***Hemigramma Zollingeri*, Christ.** (831); *Hemionitis Zollingeri*, Kurz, Journ. As. Soc. Bengal., XXXIX², 90. — Terrestrial. The common form, the sori not acrostichoid.

Malaya.

✓ + No. 12. ***Mesochlaena polycarpa*, Bedd.** (232); *Aspidium polycarpum*, Bl., Enum., 156. — Terrestrial.

Malaya to Polynesia.

+ No. 14. ***Dryopteris cucullata*, Christ.** (213); *Polypodium unitum*, L. Syst. Nat. ed. X, II, 1326; *D. unita*, C. Chr., Ind. Fil., 299; *Aspidium cucullatum*, Bl., Enum., 151. — Terrestrial. Very common. — Regarding its name see Christ's information in Philipp. Journ. Sci., II^c, 194.

Polynesia, Malaya, Ceylon, Southern India, Mascarenes, Seychelles.

+ No. 16. ***Dryopteris glandulosa*, O. Ktze.** (215); *Aspidium glandulosum*, Bl., Enum., 144. — Terrestrial.

Malaya.

No. 22. ***Dryopteris*** Spec.

+ No. 24. ***Dryopteris rhodolepis*, C. Chr.** (202); *Nephrodium rhodolepis* Clarke., Trans. Linn. Soc., Bot., I², 526. — Terrestrial. Raciborski states that this is not Blume's *Aspidium intermedium* (See C. Chr., Ind. Fil., 288) and, judging from the specimens of both species in the Buitenzorg Herbarium, I believe he is correct.

Tropical Asia, China, Japan.

△ No. 26. ***Dryopteris parasitica*, O. Ktze.** (224). —

+ No. 27. ***Pleopeltis sinuosa*, Bedd.**; *Polypodium sinuo-*

sum, Wall., (623).— Epiphytical. Interesting by its cavernous rhizome inhabited by ants.

Malaya.

- + 28. **Pleocnemia Leuzeana. Pr.** (172); *Polypodium Leuzeanum* Gaud., Freyc., Voy. Bot., 361; *Aspidium Leuzeanum*, Kze., C. Chr., Ind. Fil., 79.— Terrestrial, large, the caudex varying from short to 1 M. high in Malayan material to 10 M. high in Samoa.

Southern China, Northern India accross Malaya to Polynesia.

- + No. 29. **Pleopeltis heterocarpa. v. A. v. R.** (676); *Grammitis heterocarpa*, Bl., Enum., 118.— Epiphytical. Rather common.

Malacca, Banca, Java, Celebes.

- + No. 30. **Pleopeltis musifolia. Moore.**; *Polypodium musifolium* Bl., (654).— Terrestrial and epiphytical, forming nests gathering quantities of humus.

Malaya.

No. 32. **Lycopodium hippuris Desr.**—

- + No. 34. **Davallia pallida. Mett.** (301).—

- + No. 35. **Davallia dissecta. J. Sm.** (306)— Epiphytical and terrestrial.

Java, Sumatra.

- + No. 36. **Ophioglossum reticulatum. L.** (776).— Terrestrial. Common.

Pantropical.

No. 37. **Davallia fijiensis. Hk.** (307).—

- + No. 39. **Davallia divaricata. Bl.** (305). Epiphytical and terrestrial. Large. Common.

Tropical Asia.

- + No. 40. **Pleopeltis nigrescens. Carr.** (665).—

+ No. 41. **Dictyopteris ferruginea. v. A. v. B.** (516);
Phegopteris ferruginea, Mett., Ann. Mus. Bot. L. B., I, 224;
Aspidium Zippelianum, C. Chr., Ind. Fil., 98.— Terrestrial. Readily
distinguished by its bristly covering and pleocnemioid venation.
New Guinea.

SECTION VIII.

+ No. 1. **Dryopteris setigera. O. Ktze.** (202,817);
Cheilanthes setigera, Bl., Enum., 138.— Terrestrial, widely
distributed. The common form (var. *pallida*).

*British India across China, Japan, Polynesia and Tropical
Australia.*

+ No. 3 **Dryopteris crassifolia. O. Ktze.** (182);
Aspidium crassifolium, Bl., Enum., 158.— Terrestrial.

Malaya, Burmah.

+ No. 5. **Ophioglossum pendulum. L.** (777).— Epi-
phytical. The largest form of the genus.

Tropical Asia, Australia and Polynesia.

+ No. 7. **Dryopteris parasitica. O. Ktze.** (224);
Polypodium parasiticum, L., Spec., II, 1090.— Terrestrial.

Pantropical and subtropical.

No. 9. **Lycopodium nummularifolium Bl.**—

△ No. 10. **Pleopeltis palmata Moore:** *Polypodium
palmatum*, Bl., (669).—

+ No. 11. **Pteris quadriaurita. Retz.**, (365).—

△ No. 12. **Pleopeltis palmata Moore.** (669).—

+ No. 13. **Dryopteris decursive-pinnata. O. Ktze.**
Rev. Gen. Pl., II, 812; C. Chr., Ind. Fil. 261; *Polypodium
decursivo pinnatum*, van Hall, Nieuwe Verh. v/h Ned. Institut. V,
204.— Terrestrial. Very characteristic by its indusia being-

transformed into tufts of long hairs placed among the sporangia, and by the shape of the pinnae.

Eastern Asia.

+ No. 15. **Pleopeltis musifolia. Moore.** (654).—

+ No. 16. **Aspidium polymorphum. Wall. var. Wightii.** (243): *Nephrodium Wightii*, Clarke, Trans. Linn. Soc. Bot., 12, 538. Terrestrial. Common.

Tropical Asia.

No. 18. **Dryopteris** Spec.—

Japan.

+ No. 21. **Cyclophorus acrostichoides. Pr.** (683).—

+ No. 23. **Dryopteris megaphylla. C. Chr.** (218);—
Aspidium megaphyllum, Mett., Ann. Mus. Bot. L. B., I, 233.—
Terrestrial.

Malaya, Ceylon. Northern India, Comores, Southern Africa.

+ No. 24. **Cyclophorus acrostichoides. Pr.** (683).—

+ No. 25. **Asplenium unilaterale. Lam. var. delicatulum.** (466).— Epiphytical and terrestrial.

Malacca, Tenasserim.

+ No. 26. **Asplenium unilaterale Lam.** (466).—
Terrestrial and epiphytical.

Africa to Hawaii.

+ No. 28. **Dryopteris ferox. O. Ktze.** (221); *Aspidium ferox, Bl.*, Enum., 153.— Terrestrial. Very distinct by its strong, rigid, spreading, subulate setae leaving the stipe and rachis asperous when they fall.

Malaya.

No. 29. **Filix** Spec.—

+ No. 30. **Diplazium proliferum. Thouars.** (424);
Asplenium proliferum, Lam., Enc., II, 307.— Terrestrial. Often

cultivated. The axillary buds are used by the natives for officinal purposes.

Africa to Australia and Polynesia.

+ No. 32. **Aspidium platanifolium. Mett.** (235).—
Terrestrial.

Malaya.

No. 33. **Polydodium** Spec.—

America.

△ No. 35. **Asplenium vulcanicum. Bl.** (456).—

No. 39. **Polypodium Knightiae. hort.**—

+ No. 40. **Stenosemia aurita, Pr.** (726): *Acrostichum auritum*, Sw., Schrad. Journ., 1800², 12.— Terrestrial. Characteristic by its contracted fertile fronds with staghorn-like pinnae and the sori covering almost both surfaces.

Malaya, Salomon Isles.

+ No. 41. **Pteris ensiformis. Burm. var. Victoriae** (361); *Pt. Victoriae, hort.*— Terrestrial. A beautiful plant often cultivated and probably a garden variety of the type.

+ No. 42. **Polypodium pallens. Bl.** (620); *P. subauriculatum, Bl., var.*, C. Chr., Ind. Fil., 567.— Dr. Raciborski esteems this a rare, abnormal, suppressed, local derivative of *P. subauriculatum*, from which it differs in having the fronds much smaller and densely soft-pubescent on both sides. I have seen in state of nature numerous full-grown, fruiting specimens of this in one and the same locality in the Preanger Regencies.

Java.

SECTION IX.

+ No. 1. **Cibotium barometz. J. Sm.** (48,792).—

+ No. 5. **Alsophila glauca, J. Sm. var. longepa-**

leata. (41).— Arborescent. Probably imported by Teysmann when returning from one of his botanical voyages.

Celebes.

+ No. 10. **Stenochlaena sorbifolia.** **J. Sm.**, (720): *Acrostichum sorbifolium*. L., Spec., II, 1069.— Scandent. Somewhat different from the typical form in having the rhizome scales small, and the pinnae less narrowly cuneate at the base.

Pantropical.

+ No. 12. **Alsophila saparuensis.** **v. A. v. R.**, (38).— Arborescent. Probably imported by Teysmann.

Saparua, Buru.

No. 13. **Alsophila Van Geertii.** *hort.*

No. 15. **Alsophila latebrosa.** **Wall.**, (38).— Arborescent. Very common.

Malaya, Northern India.

+ No. 17. **Angiopteris evecta.** **Hoffm.**, *forma Miqueliana*. (835).—

Java.

+ No. 23. **Demstaedtia scabra** **Moore.** (143); *Dicksonia scabra*, **Wall.**, List, No. 2173.— Terrestrial. A garden variety with once or more times forked fronds. The type occurs in:

British India, Ceylon, Malaya, Formosa, China and Japan.

+ No. 25. **Asplenium tenerum.** **Forst.**, (458).— Terrestrial and sometimes also epiphytical. A very common and much cultivated fern.

Tropical Asia.

+ No. 27. **Humata heterophylla.** **Desv.**, (286); *Davallia heterophylla* **Sm.**, Mém. Ac. Turin, V, 415.— Epiphytical. Wide-creeping, rather scandent.

Malaya to Polynesia.

+ No. 28. **Asplenium squamulatum.** **Bl.**, (445).—

+ No. 29. **Polypodium nigrescens. Bl.**, (665).—

+ No. 30. **Dryopteris setigera. O. Ktze.** (202,817).—
The common form.

+ No. 32. **Pleopeltis platyphylla. Bedd.**: *Polypodium platyphyllum. Sw.*, (647).—Terrestrial and epiphytical. Characteristic by its dark-green fronds provided above with very numerous white dots.

Malacca, Java, Borneo.

+ No. 34. **Marattia sambucina Bl.**, (764).— Readily recognizable by its small ultimate segments and distinctly winged rachises.

Malaya.

+ No. 35. **Christensenia aesculifolia. Max.**, (768).—

+ No. 36. **Drynaria quercifolia. J. Sm.**, (698): *Polypodium quercifolium L.*, Spec., II, 1087.—Epiphytical, adscendent.
Southern China, Tropical Asia & Australia, Fiji.

+ No. 37. **Hymenolepis spicata. Pr.**, (728); *Acrostichum spicatum L. f.*, Suppl., 444.— Epiphytical. Very common.
Madagascar, Mascarenes, Tropical Asia, Australia, Polynesia.

SECTION X.

+ No. 1. **Phegopteris cuspidata. Mett.**, (511).—

+ No. 2. **Cyclophorus cuspidata. C. Chr.** (686); *Nipholobolus penangianus. Hk.*, Ic. Pl., III, tab. CCIH.—Epiphytical.
Burmah, Malacca, Sumatra, Java.

+ No. 5. **Diplazium grammitoides. Pr.**, (410).—
Terrestrial, caespitose.
Malaya.

+ No. 6. **Asplenium unilaterale. Lam.**, var. **delicatum.** (466).—

+ No. 8. **Pteris bianrita: L.** (371).— Terrestrial. Common. Often cultivated.

Pantropical.

△ No. 9. **Leptochilus lomarioides. Bl.** (746).—

+ No. 13. **Angiopteris Smithii. Rac.** (762).— Terrestrial.

Malayan?

+ No. 14. **Diplazium asperum. Bl.** (420).—

+ No. 15. **Pteris quadriaurita. Retz.** (365).—

△ No. 18. **Polystichum aristatum. Pr.** var. **cornu-cervi.**—

No. 19. **Filix** Spec.—

+ No. 20. **Aspidium polymorphum. Wall.** var. **subvariegatum.** (244).— Terrestrial.

Malayan?

No. 21. **Filix** Spec.—

Java (Tjibodas).

+ No. 22. **Alsophila glabra. Hk.** (32); *Gymnosphaera glabra*, *Bl.*, Enum., 243.— A common, very high treefern.

Tropical Asia.

+ No. 23. **Blechnum Treubii. v. A. v. R.** (386).— Very small, terrestrial, caespitose. The nearest ally of *B. lanceola*, *Sw.* from Brazil and Panama.

Java (Mount Salak).

+ No. 24. **Leptochilus Linnaeanus. Féc.** (735).— Terrestrial, rather caespitose.

Malaya, Annam.

+ No. 25. **Lindsaya repens. Bedd.** (261); *Dicksonia repens*, *Bory, Voy.*, II. 323.— Epiphytical. climbing.

Mauritius, Tropical Asia to Polynesia.

+ No. 27. **Cyclophorus** Spec.—

+ No. 28. **Pteris longifolia. L. var. diversifolia.** (356): *Pt. diversifolia*, Sw., Syn., 96, 288.— Terrestrial, not rarely also growing on stone walls. Very common.

Widely distributed all round the world.

+ No. 30. **Diplazium asperum. Bl.** (420).—

+ No. 31. **Nephrolepis exaltata. Schott.** (161).—

SECTION XI.

+ No. 1. **Loxogramme involuta. Pr.** (537): *Grammitis involuta*, Don, Prod. Flor. Nepal., 14; *Polypodium scolopendrinum*, C. Chr., Ind. Fil., 562.—Epiphytical.

China, Tropical Asia, Melanesia.

No. 2. **Cyclophorus** Spec.—

+ No. 4. **Pteris serrulata. L. f.** (361): *Pt. multifida*, Poir., C. Chr., Ind. Fil., 602.—Terrestrial. A. small specimen. In cultivation.

China, Japan.

+ No. 5. **Nephrolepis Duffi. Moore.** (159).—Terrestrial. Probably a garden variety or a monstrous derivative of another species, obtained by cultivation. The numerous specimens which I have seen in different gardens or as ornamental plants in rooms were all sterile.

Malaya, Northern Australia.

+ No. 7. **Davallia hirsuta. v. A. v. R.** (299); *Leucostegia hirsuta*, J. Sm., Journ. of Bot., III, 416; *Microlepia hirsuta*, Pr., C. Chr., Ind. Fil., 426.—Terrestrial or epiphytical. Rhizome wide-creeping, intertwinéd. Copeland founded on this and 2 other closely allied species his genus *Davallodes*, different from *Davallia* by its rhizome clothed with stiff, bristly hairs with small peltate bases. If he is correct in this, *Davallia triphylla*, *Hk.* and *pentaphylla*, *Bl.*, having nearly quite the same scales absolutely different

from those of *Eudavallia*, ought also to be separated from *Davallia* and treated as species of a distinct genus *Scyphularia*: moreover the fronds of *Scyphularia* are quite different from those of *Eudavallia*. Fée considered *Scyphularia* as a distinct genus and called its species *S. pentaphylla* & *triphylla*.

Philippines, Celebes, Borneo.

+ No. 9. ***Nephrolepis hirsutula*. Pr.** (160): *Polypodium hirsutum*, Forst., Prod., 81.— Terrestrial and epiphytcal. Common.
Pantropical.

+ No. 11. ***Doryopteris concolor*. Kuhn.** (347): *Pteris concolor*, Langsd. & Fisch., Ic. Fil., 19.— Terrestrial. A small handsome species, though not often cultivated in Malaya.
Pantropical.

+ No. 13. ***Dryopteris Wigmanii*. C. Chr.** (192); *Aspidium Wigmanii*, Rac., Bull. Ac. Crac., 1902, 61.— Terrestrial.
Aru Islands.

+ No. 17. ***Nephrolepis floccigera* Moore, var. *monstruosa*.** (159).— A very beautiful, often cultivated, terrestrial form, probably a garden variety, which is reported to be always sterile.
Malayan.

No. 18. ***Lycopodium*** Spec.—

+ No. 19. ***Phegopteris cuspidata*. Mett.** (511).—

△ No. 20. ***Leptochilus lomarioides*. Bl.** (746).—

+ No. 22. ***Dryopteris heterocarpa*. O. Ktze.** (228); *Aspidium heterocarpum*, Bl., Enum., 155.— Terrestrial.
Malaya.

+ No. 24. ***Pleopeltis revoluta*. v. A. v. R.** (638); *Drynaria revoluta*, J. Sm., Journ. of Bot., III, 421.— Epiphytcal. General. Regarding the nomenclature of this species see Copeland's information in *Leatl. of Philipp. Bot.*, II (1908), 411—413.

Malaya, New Caledonia.

No. 25. **Filix** Spec.—

+ No. 26 **Hemionitis palmata**. **L.** (547).—A handsome terrestrial species.

Tropical America.

+ No. 27. **Christensenia aesculifolia**. **Max.** (768).—

+ No. 28. **Nephrolepis exaltata**. **Schott.** (161).—

+ No. 29. **Tenitis blechnoides**. **Sw.** (563).—

✓ + No. 30. **Pleopeltis punctata**. **Bedd.** (652); *Acrostichum punctatum*. **L.**, Spec., Ed. II², 1524.—Epiphytical. Hardly different from *Pl. musifolia* **Moore**, when dried but readily distinguished when seen in state of nature.

Tropical Africa, Asia & Australia, Mascarenes, Polynesia.

+ No. 32. **Asplenium Belangeri**. **Kze.** (474).—

✓ + No. 33. **Drynaria sparsisora**. **Moore.** (609); *Polypodium sparsisorum*, **Desv.**, Berl. Mag., V, 315.—Epiphytical.

Ceylon, Malaya, Tropical Australia, Fiji.

+ No. 35. **Nephrolepis cordifolia**. **Pr.** (160).—

✓ + No. 36. **Odontosoria chinensis**. **J. Sm.** (259); *Trichomanes chinense*, **L.**, Spec., II, 1099.—Terrestrial. Common.

Madagascar, Comores, Mascarenes, Tropical Asia to Polynesia, China, Japan.

+ No. 37. **Platycerium bifurcatum**. **C. Chr.** (710); *Acrostichum bifurcatum*, **Cav.**, Hist. Nat., I, 105.—Epiphytical. Common in cultivation in our gardens.

Tropical Australia, New Caledonia, Lord Howe's Island.

✓ + No. 38. **Dryopteris urophylla**. **C. Chr.** (216); *Polypodium urophyllum*, **Wall.**, List, No. 299.—Terrestrial.

Southern China, Northern India, Malaya to Tropical Australia and Polynesia.

+ No. 39. **Davallia pentaphylla. Bl.** (297). — Epiphyt-
ical. I have seen specimens in state of nature with 4 pairs of
lateral pinnae below the terminal one.

Malaya.

SECTION XII.

+ No. 1. **Dryopteris setigera. O. Ktze.** (202). — The
common form.

+ No. 2. **Didymochlaena lunulata. Desv.** (170). —

+ No. 3. **Pteris tripartita. Sw.** (375). — Terrestrial. Very
common.

Paleotropical.

+ No. 4. **Dryopteris sparsa. O. Ktze** (197); *Polypo-
dium sparsum, Ham.*, MS. — Terrestrial. Resembling *D. pulvinuli-
ferum, O. Ktze*, but with the rachises quite naked. By its unequal-
sided ultimate leaflets often more or less suggesting *Polystichum*.
The variety *Raapii* has the leaflets more distinctly equal-sided at
the base.

Southern China, Northern India, Ceylon, Malaya, Mauritius.

✓ + No. 5. **Asplenium contiguum. Ktze.** (461). — Ter-
restrial.

Java, New Guinea, Hawaii.

+ No. 7. **Aspidium polymorphum. Wall. var. Wightii.** (243). —

+ No. 9. **Diplazium crenato-serratum. Moore.**
(407); *Asplenium crenato-serratum, B.*, Enum., 177. — Terrestrial.
Malaya.

No. 11. **Aspidium vastum. Bl.** (241). —

+ No. 13. **Aspidium polymorphum. Wall. var. subvariegatum.** (244). —

✓ + No. 17. **Blechnum orientale**. **L.** (387).—Terrestrial. Common. Often cultivated.

Tropical Asia, Australia, Polynesia.

+ No. 18. **Dictyopteris ferruginea**. **r. A. r. R.** (516).—

+ No. 20. **Gleichenia linearis**. **Clarke**. (59); *Polypodium lineare*, *Burm.*, Flor Ind., 235.—Terrestrial. Often covering large portions of the field, forming dense brush-woods.

Tropical and extra-tropical.

+ No. 24. **Polypodium papillosum**. **Bl.** (600).—Terrestrial and epiphytical. Readily distinguished by its sori placed in deep, saccate depressions of the fronds.

Malaya.

+ No. 26. **Asplenium unilaterale**. **Lam.** (466).—

No. 27. *Lycopodium* Spec.—

+ No. 30. **Oleandra colubrina**. **Copel.** var. **brachypus**. (152, 806).—Terrestrial and epiphytical.

Java, Borneo, Philippines.

✓ + No. 31. **Cyrtomium falcatum**. **Pr.** (253); *Polypodium falcatum*, *L. f.*, Suppl., 446; *Polystichum falcatum* *Diels*, C. Chr., Ind. Fil., 581.—Terrestrial. Often cultivated.

Southern Africa, Madagascar, Br. India, Ceylon, Malaya, China, Japan, Sandwich Islands.

No. 33. **Acrostichum** Spec.—

No. 34. **Pleopeltis nigrescens**. **Carr.** (665).)

✓ + No. 35. **Diplazium esculentum**. **Sw.** (425); *Hemionitis esculenta*, *Retz*, Obs., VI, 38.—Terrestrial. Rather large. Widely distributed in:

Tropical Asia and Polynesia.

+ No. 36. **Saccoloma sorbifolium**. **Christ**. (282); *Dicksonia sorbifolia*, *Sm.*, Rees, Cycl., VII,.....?—A characteristic,

terrestrial species, with the indusia much suggesting those of Dicksonia, and the pinnæ resembling those of Nephrolepis.

Malaya.

+ No. 37. **Pleopeltis punctata. Bedd.** (653).—

+ No. 38. **Dictyopteris irregularis. Pr.** (520).—

+ No. 39. **Asplenium squamulatum. Bl.** (445).—

△ No. 40. **Pleocnemia devexa. v. A. v. R. var. minor.** (812).—

Terrestrial.

Borneo.

✓ + No. 42. **Davallia solida. Sw.** (305): *Trichomanes solidum*, Forst., Prod. 86.— Epiphytical. Common. Often cultivated.
Malaya, Polynesia, Queensland.

SECTION XIII.

No. 1. *Lycopodium hippuris*, Desv.—

+ No. 2. **Polybotrya Nieuwenhuisii. Rac.** (724).—
Terrestrial.

Plants with the barren fronds much resembling those of Lastræa.

Borneo.

✓ + No. 3. **Cyclophorus varius. Gaud.** (682); *Niphobolus varius*, Klf., Enum., 125.— Epiphytical. Common.
Malaya to Polynesia.

+ No. 4. **Mesochlaena polycarpa. Bedd.** (232).—

+ No. 6. **Leptochilus cuspidatus. C. Chr.** (741).—

+ No. 7. **Pleopeltis pteropus. Moore.** (661).—

+ No. 8. **Adiantum formosum. R. Br.** (328).— Ter-

restrial. A handsome species, distinguished by its copiously divided fronds. In cultivation.

Australia, New Zealand.

△ No. 9. **Onychium japonicum. Kze.** (351).—
Java, Timor, Philippines. Japan, China, Northern India.

No. 10. **Filix** Spec.—

Amboyna.

+ No. 11. **Pleopeltis phymatodes. Moore;** *Polypodium phymatodes*, L., (664).— Terrestrial and epiphytical. A variable and very common species, widely distributed.

Tropical and Subtropical Asia, Africa and Australia, Polynesia.

+ No. 12. **Dryopteris gongylodes. O. Ktze.** (212); *Aspidium goggilodus*, Schk., Kr. Gew., I, 193.— Terrestrial, especially in swampy places and tanks.

Pantropical.

No. 14. **Lindsaya** Spec.—

+ No. 15. **Pteris leptophylla. Sw.** C. Chr., Ind. Fil., 600.— Terrestrial. A small specimen.

Brazil, Columbia.

+ No. 17. **Antrophyum latifolium. Bl.** (533).—
Malaya, Northern India, Southern China.

+ No. 18. **Dictyopteris irregularis. Pr.** (520).—

+ No. 21. **Photinopteris speciosa. Bl.** (731).— A beautiful, epiphytical, rather scandent fern well-marked by the stalks of the pinnae being dilated at the base, so as to form a conspicuous, roundish, scutiform stipule-like outgrowth.

Malaya.

+ No. 23. **Ceropteris tartarea. Link. var. ochracea.** (528); *Gymnogramme ochracea*, Pr., Rel. Haenk., I, 17.— Terrestrial,

sometimes epiphytical on moss-grown trees. A beautiful fern, often in cultivation.

Java (escaped from gardens), Tropical America.

+ No 24. **Ceropteris calomelanos. Und.** (528): *Acrostichum calomelanos. L.* Spec., II, 1072.— Terrestrial, and like the preceding sometimes also on moss-grown trees. Very common in cultivation.

Java and very probably also in many other Malayan islands (escaped from gardens), Natal. Western Africa, Tropical America.

+ No. 25. **Nephrolepis exaltata. Schott.** (161).—

+ No. 26. **Odontosoria chinensis. J. Sm.** (259).—

+ No. 27. **Diplazium asperum. Bl.** (420).—

+ No. 29. **Pteris quadriaurita. Retz.** (365).—

+ No. 32. **Diplazium pallidum, Moore.** (405): *Asplenium pallidum, Bl.*, Enum., 177.— Terrestrial.

Malaya, Queensland.

+ No. 35. **Botrychium daucifolium. Wall.** (778).— Terrestrial.

Northern India, Ceylon, Java, Philippines.

+ No. 36. **Helminthostachys zeylanica Hk.** (777).—

SECTION XIV.

+ No. 1. **Lygodium flexuosum. Sw.** (144): *Ophioglossum flexuosum, L.*, Spec., II, 1063.— Terrestrial. Very common.

Tropical and Temperate Asia, Australia.

+ No. 4. **Platycerium bifurcatum. C. Chr.** (710).—

+ No. 9. **Leptochilus cuspidatus. C. Chr.** (741).—

+ No. 11. **Asplenium longissimum. Bl.** (457).—

- + No. 16. **Cibotium barometz. J. Sm.**, (48.792).—
+ No. 18. **Loxogramme** Spec.—
+ No. 20. **Pleopeltis nigrescens. Carr.**, (665).—
+ No. 21. **Pleopeltis phymatodes. Moore.**, (664).—
+ No. 25. **Dryopteris megaphylla. C. Chr.**, (218).—
+ No. 30. **Lygodium circinatum. Sw.**, (111); *Ophioglossum circinatum. Burm.*, Flor Ind., 228.— Terrestrial. Very common. with high-twining liana-like fronds.
Tropical Asia, Queensland.
✓ + No. 35. **Lygodium trifurcatum. Bk.**, (112).— Terrestrial.
Banca, Celebes, Amboyna, New Guinea, Polynesia, Melanesia.
+ No. 36. **Stenochlaena palustris. Bedd.**, (720).—

SECTION XV.

- + No 1. **Lygodium circinatum. Sw.**, (111).—
+ No 4. **Lygodium salicifolium. Pr.**, (113).— Terrestrial. Christensen states in his Index filicum that this species only occurs in British India, but in the Buitenzorg Herbarium are several specimina gathered in Malayan Islands and I have seen specimens in state of nature in Java. The species, however, seems to be moderately rare in Malaya.
Tropical Asia.
+ No 7. **Lygodium japonicum. Sw.**, (114); *Ophioglossum japonicum, Thb.*, Flor. Jap., 328.— Terrestrial. Near *L. flexuosum*, Sw., but readily distinguished from that species in having the fertile pinnulæ smaller and more copiously divided, and commonly so contracted that there is a little or no leafy membrane present.
Tropical and Temperate Asia.

+ No 17. **Angiopteris evecta. Hoffm. forma Miqueliana.** (835). —

Besides the species above quoted there are also numerous ferns in the nurseries and other parts of the gardens, but they are mostly doublets of the same species and not purveyed with labels.

A NEW MALAYAN FERN GENUS.

BY CAPT. C. R. W. K. VAN ALDERWERELT VAN ROSENBURGH.

STENOLEPIA, *n. A. n. R.*

Cystopteridi affinis. Sori subglobosi, haud terminales sed ad venas venulasve dorsales vel ad venarum furcarum angulos positi. Indusium extrorsum, parvum, angustum. integrum, demum deflexum, basi angustata ad receptaculum elevatum solum (haud ad venam parenchymaque) affixum, deciduum. Annulus Polypodiacearum more verticalis, incompletus.

The single species of this genus has originally been described by BLUME as *Aspidium triste* and was later on known under the name of *Alsophila tristis*, Bl., *Cystopteris tristis*, Mett. and *Davallia tristis*, Rac.

A more exact examination, however, of the specimens gathered by Dr. M. RACIBORSKI proves it to belong neither to *Aspidium* nor to one of the other genera quoted above.

RACIBORSKI has gathered some young and adult fronds only. On the young fronds the sori are all destitute of an indusium, but the ripe ones have still several sori provided with an indusium, which is evidence that the indusium is undoubtedly present (see Raciborski's diagnosis in Flor. Btz.I.), but it is deciduous in age and very caducous in dried *young* material.

The plant superficially resembles in appearance and mode of growth *Diacalpe aspidioides*, Bl. and is allied to the genus *Cystopteris*. It agrees with the latter in having the sori subglobose, placed on the back of a vein or veinlet or at the forking of a vein, and provided with an extrorse indusium; it differs from the said genus in having the indusium not hood-shaped but narrow, spathulato-ligulate, rigid, entire, small, too small to cover the sorus permanently, and attached by its gradually narrowed base to the receptacle only (as in *Leptolepia*) and not to the vein and parenchyma.

The annulus is, as in the other Polypodiaceæ, vertical and incomplete.

A single species.

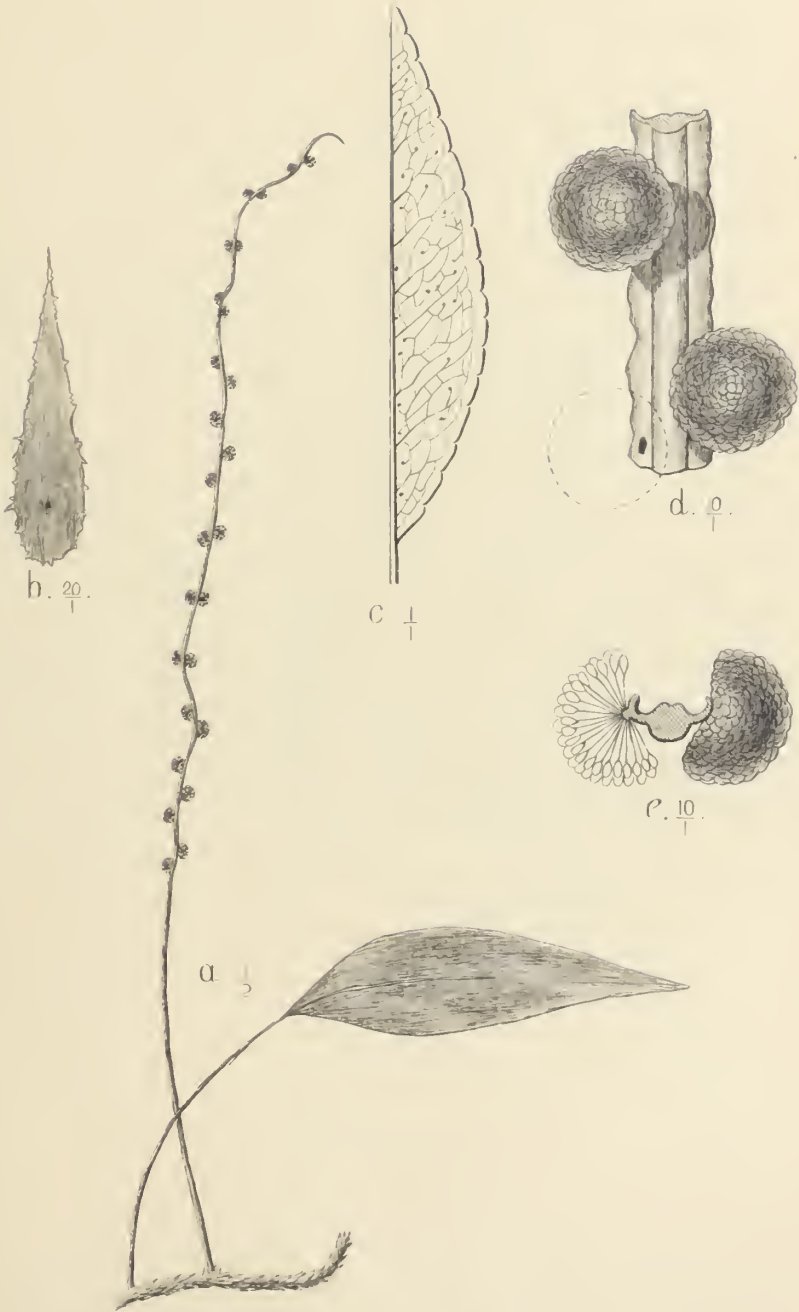
Stenolepia tristis (Bl), **r. A. r. R.**: *Aspidium*, Bl., Enum., 169, (1828); *Alsophila*, Bl., Moore, Ind., 58, (1857); *Cystopteris*, Mett., Ann. Mus. Bot. L. B., I, 241, (1864); *Davallia*, Rac., Flor. Btz., I, 131, (1898). — *Java*.

HAKONEMACHI, August 1909.

TAB. I.

Pleopeltis Bakeri (Luer ss.), *v. A. v. R.* taken from a doublet, gathered by Dr. O. Beccari.

- a. Rhizome with fronds, $\frac{1}{2} \times$.
- b. Rhizome scale, $20 \times$.
- c. Portion of barren frond, $1 \times$.
- d. Portion of fertile frond, $10 \times$.
- e. Transversal section of fertile frond, $10 \times$.

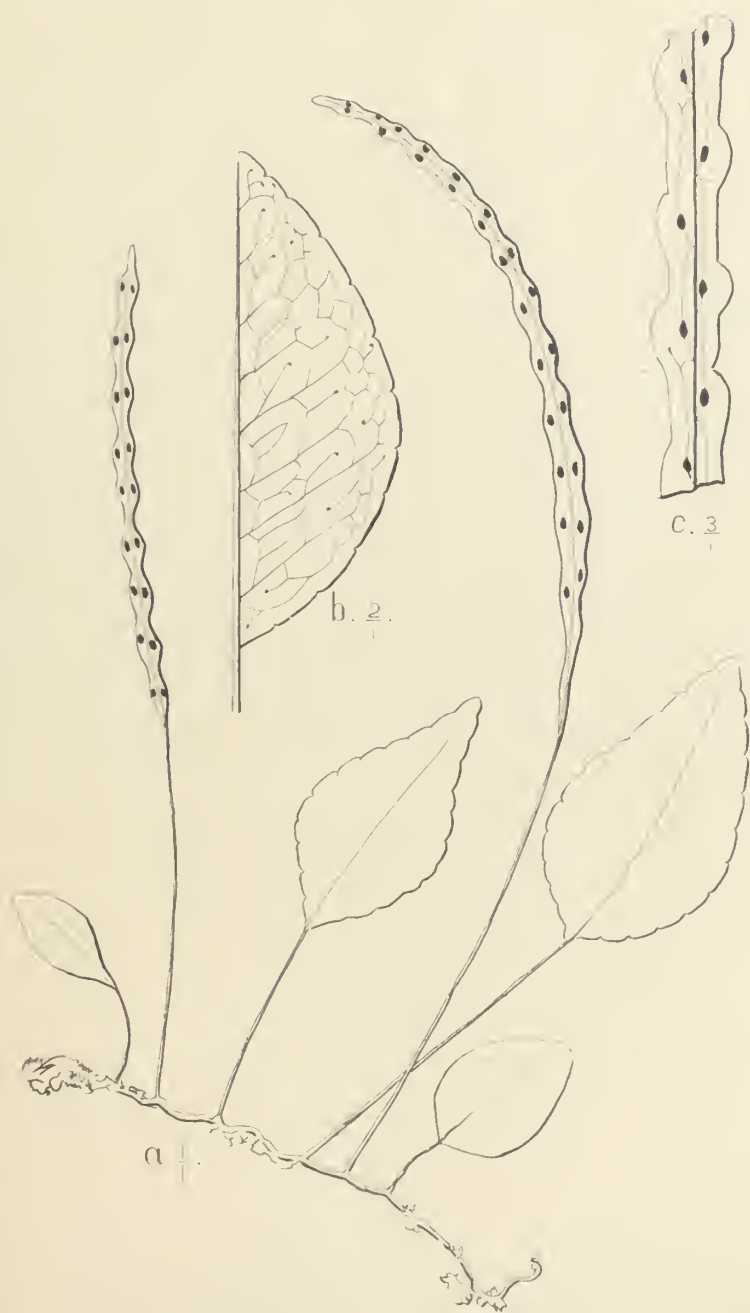


TAB. II.

Pleopeltis nummularia (Pr.), **Moore**, taken from
a specimen gathered in Luzon by Dr. Weiss.

- a. Rhizome with fronds, 1×.
- b. Portion of barren frond, 2×.
- c. Portion of fertile frond, 3×.

TAB. II



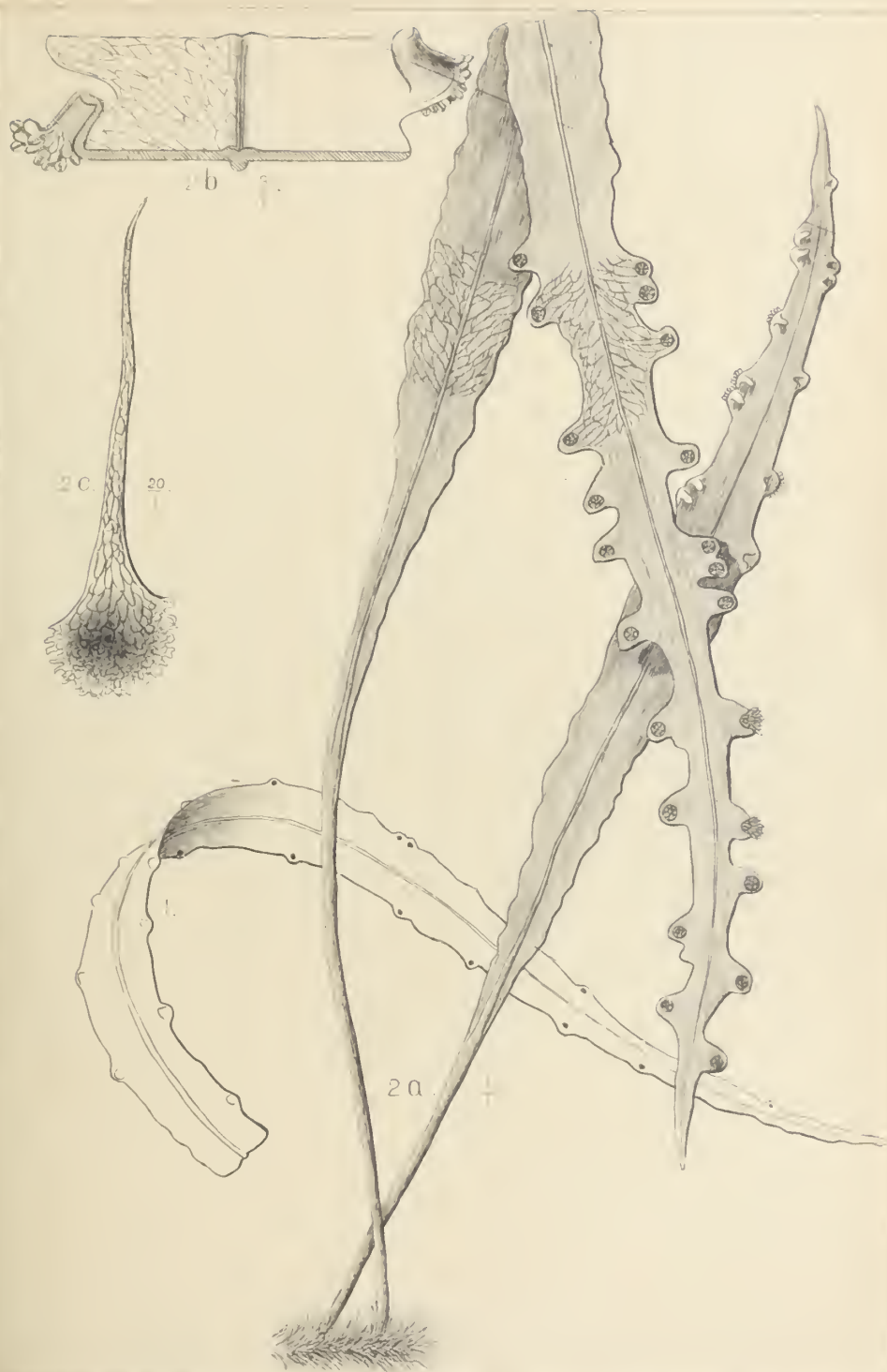
TAB. III.

Pleopeltis soridens (Hk.), *v. A. v. R.*,

Fig. 1. After Hooker, Spec. Fil. V, tab. CCLXXXIII, B.

Fig. 2. After a specimen gathered in Borneo by Dr. Hallier, determined by Dr. Christ.

- a. Rhizome with fronds, $1\times$.
- b. Portion of fertile frond, $3\times$.
- c. Rhizome scale, $20\times$.



TAB. IV.

Pleopeltis costulata (Ces.), *v. A. v. R.*, taken from a doublet gathered by Dr. O. Beccari.

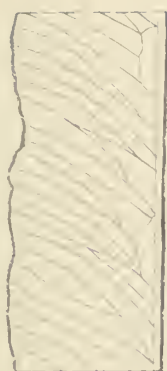
- a. Rhizome with fronds, 1×.
- b. Portion of fertile frond, 5×.
- c. Transversal section of fertile frond, 5×.



TAB. V.

Blechnum Treubii. v. A. v. B. taken from specimens cultivated in the Buitenzorg gardens.

- a. Whole plant. $1\times$.
- b. Portion of barren frond, $3\times$.
- c.—d. Transversal sections of young and ripe sori, $20\times$.



b 3



d 2



c 20



TAB. VI.

Polybotrya Nieuwenhuisii. Rac., taken from a specimen gathered by Dr. Nieuwenhuis. (Small form).

- a. Barren frond, 1X.
- b. Portion of barren pinna, 3X.
- c—c'. Pinnæ of fertile frond, 1X.
- d. Portion of fertile pinna, 4X.



TAB. VII.

Stenolepia tristis, c. A. v. R. taken from a specimen gathered by Dr. M. Raciborski.

- a. Apex of the rhizome with the bases of 2 stipes showing the scars of fallen scales, $1\times$.
- b. Pinnula, $1\times$.
- c. Secondary pinnula, $6\times$.
- d. Young sorus, problematic
- e. Ripe sorus, $20\times$.
- f'—f''. Sporangia, $100\times$.

